

DEPARTMENT of ENVIRONMENTAL SERVICES  
Water Division - Watershed Management Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: CRESCENT LAKE	Lake Area (ha): 60.06
Town: WOLFEBORO	Maximum depth (m): 6.4
County: Carroll	Mean depth (m): 3.0
River Basin: Merrimack	Volume (m <sup>3</sup> ): 3539500
Latitude: 43°35'06" N	Relative depth: 0.5
Longitude: 71°11'42" W	Shore configuration: 1.58
Elevation (ft): 534	Areal water load (m/yr): 35.62
Shore length (m): 6100	Flushing rate (yr <sup>-1</sup> ): 11.90
Watershed area (ha): 9505.3	P retention coeff.: 0.41
% watershed ponded: 13.2	Lake type: natural w/dam

BIOLOGICAL:

		10 March 2003	16 July 2002
DOM. PHYTOPLANKTON (% TOTAL)	#1	ASTERIONELLA 45%	ASTERIONELLA 25%
	#2	DINOBRYON 40%	CHRYSOSPHAERELLA 20%
	#3		STEPHANODISCUS 10%
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			1.59
DOM. ZOOPLANKTON (% TOTAL)	#1	KELLCOTTIA 20%	NAUPLIUS LARVA 41%
	#2	CALANOID COPEPOD 20%	KELLCOTTIA 15%
	#3	CILIATE SPP. 20%	VORTICELLA 12%
ROTIFERS/LITER		16	43
MICROCRUSTACEA/LITER		27	125
ZOOPLANKTON ABUNDANCE (#/L)		55	194
VASCULAR PLANT ABUNDANCE			Scattered
SECCHI DISK TRANSPARENCY (m)			4.9
BOTTOM DISSOLVED OXYGEN (mg/L)		8.3	13.3
BACTERIA (E. coli, #/100 ml)	#1		1
	#2		< 1
	#3		

SUMMER THERMAL STRATIFICATION:

weakly stratified

Depth of thermocline (m): None  
Hypolimnion volume (m<sup>3</sup>) : None  
Anoxic volume (m<sup>3</sup>) : None

**CHEMICAL:**

Lake: CRESCENT LAKE

Town: WOLFEBORO

	10 March 2003		16 July 2002		
DEPTH (m)	2.0	4.0	2.0		4.0
pH (units)	6.5	6.3	6.6		6.7
A.N.C. (Alkalinity)	6.5	7.2	4.4		6.0
NITRATE NITROGEN	< 0.05	0.06	< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	0.40	0.30	0.30		< 0.25
TOTAL PHOSPHORUS	0.008	0.006	0.009		0.019
CONDUCTIVITY ( $\mu$ mhos/cm)	59.9	69.7	53.8		53.4
APPARENT COLOR (cpu)	7	7	6		7
MAGNESIUM			0.50		
CALCIUM			3.2		
SODIUM			5.2		
POTASSIUM			0.49		
CHLORIDE	8	10	7		7
SULFATE	4	5	4		4
TN : TP	50	60	33		
CALCITE SATURATION INDEX			3.6		

All results in mg/L unless indicated otherwise

**TROPHIC CLASSIFICATION: 2002**

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	2	1	0	3	Oligo.

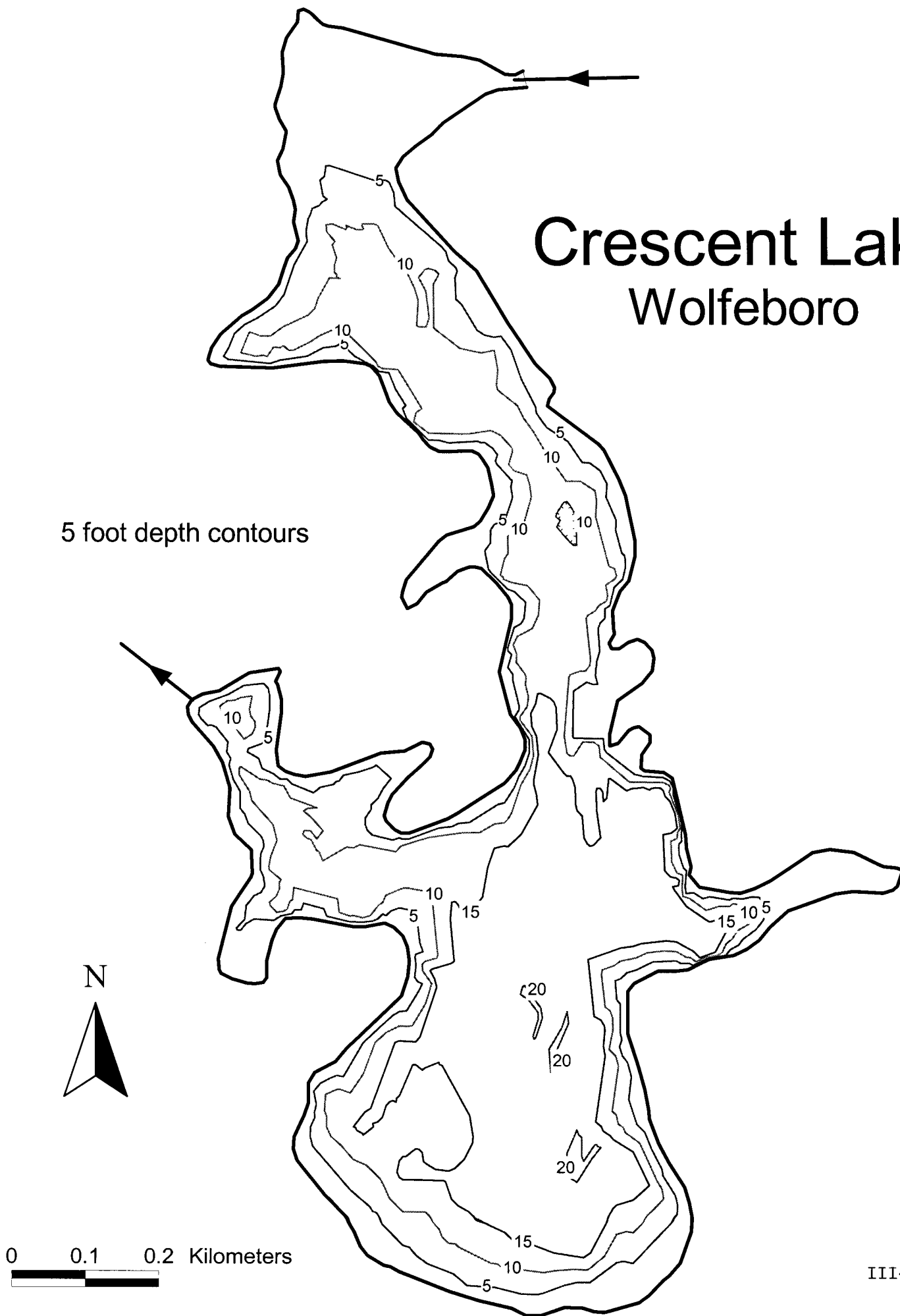
**COMMENTS:**

1. Previously surveyed in 1984. No change in trophic class between the two years.
2. This is a clear water, oligotrophic lake but does contain the nuisance exotic species of milfoil. Exotic milfoil first appeared at Mast Landing in 1980 and was treated with the herbicide 2,4-D in 1981. Its return growth was managed by hand-pulling and screening for many years after the initial treatment, but was subsequently treated with the herbicide diquat in 1991, 1995, 1999, and 2003.

# Crescent Lake

## Wolfeboro

5 foot depth contours



# FIELD DATA SHEET

LAKE: CRESCENT LAKE  
DATE: 07/16/2002

TOWN: WOLFEBORO  
WEATHER: Sunny, warm & breezy

**TOWN: WOLFEBORO**

[illegible]

\*Dissolved oxygen values are in mg/L

# Wolfeboro



[illegible]